

**Memorandum**

28-Oct-2015

**To:** Mike Lindgren, Chief Project Officer  
**From:** Nigel Lockyer, Director  
**Subject:** Director's Progress Review of the Short Baseline Neutrino Program

Please organize and conduct a Director's Review on December 15-17, 2015 to assess the progress to date and plans for execution of the Short Baseline Neutrino Program. This review should cover the following aspects of the program:

- Design, construction, and installation of the SBND detector;
- Refurbishment and installation of the ICARUS detector including design and construction of any new detector subsystems such as the Cosmic Ray Tagger;
- Design, construction, and installation of the necessary support infrastructure such as buildings, cryogenic systems, overburden and DAQ;
- Progress toward a conceptual design for upgrades to the Booster Neutrino Beam (BNB).

The focus of this review is cost, schedule, management, ES&H, and technical readiness for the execution of the program. The review committee should respond to the following questions:

1. **Design and Scope.** Have performance requirements been defined that meet the goals of the SBN program? Have independent design reviews been conducted? Based on the design reviews, are the designs sound and likely to meet the performance requirements? Do the designs capture the entire scope and are they adequately defined? Have the partnering agencies/organizations (e.g. CERN, DOE, INFN, NSF, SNSF, and STFC) identified and agreed to their respective scope?
2. **Cost and Schedule.** Are the DOE cost and schedule estimates credible and realistic? Is the proposed DOE spending profile consistent with the projected available budget? Has adequate scope and schedule contingency been identified?
3. **Management.** Have sufficient management plan documents been developed? Are coordinated management teams in place? Is there a credible plan for interface control? Are the projected resources sufficient to complete design, construction, and installation and are these resources likely to be available when needed? Are critical procurements sufficiently understood and coordinated across the organizations involved?
4. **Environment, Safety, and Health.** Is ES&H being appropriately addressed? Are the required environmental approvals, permits, and safety approvals on track to meet the schedule?

The committee is asked to present a draft of their report at the review closeout and to issue the final report within two weeks of the review's conclusion.



Nigel Lockyer  
Director  
Fermi National Accelerator Laboratory

**CC:**

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